The Art of Teaming

Guidebook

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INTRODUCTION

Teaming - everybody is doing it! But not everyone is doing it well. The purpose of this guidebook is to help all levels of teams whether your team is in the painful process of "forming," struggling with the "storming" phase, in the process of "norming," or your team is a well oiled "performing" machine. This guidebook was designed to be a source for problem solving no matter what the degree of team formation. If your team is just forming and there is confusion on how to run a kick-off meeting, or if your goal is to take teaming beyond its common dimensions and make it an art, this guidebook can help. The inherent difficulty with all teams, and teaming in general, is that the team's problems and needs are as diverse as its team members. It is the purpose of this guidebook to give each team something to enhance its successfulness.

Background and Definition

This guidebook evolved from the AMC Pamphlet 70-27, Integrated Product and Process Management Guide. It will help you work through some general teaming issues by providing you with examples of what to do and what things to consider. Remember that each team is different. You should use this as a reference to tailor your team's actions to your team's personality. Don't get frustrated. Teams have phases and cycles and by accepting and understanding that, you can use those times to your advantage.

Have fun!!!

TEAM CHARTERS

Introduction

Charters are important for teams so that mission, goals, responsibilities, and deliverables are documented and everyone understands them. Without formal documentation, no common understanding can be reached and members will lose track of what they are supposed to do. But there is a lot of confusion regarding team charters. Some people think the team creates a charter to define its own mission and operating procedures. Others feel the charter should be provided to the team by a chartering official(s). As we'll see, both views can be correct depending on the type of team in question.

A. Purpose

Charters should be developed and used for each team project/effort in order to establish team members' purpose, responsibilities, and products. The charter documents the purpose, scope, membership, relationships, agreements, responsibilities, products, due dates, and broad guidelines for the conduct of the team. The charter presents the why, what, when, who, and how for individual teams, including any unique requirements or conditions.

B. Charter vs. Appointment Letter

An appointed team should be provided an Appointment Letter by the appointing official(s) at the very beginning. The Appointment Letter sometimes addresses only the Team Leader. It is then that person's responsibility to select/recruit other members of the team. In other cases, the Appointment Letter identifies all the team members. Many times it also describes the team's mission and purpose, its products, and its deliverables. Often Appointment Letters are confused with charters because of the similarity of content. Generally speaking, however, Appointment Letters do not describe team methods of operation, member responsibilities, or other details.

Both appointed and self-directed teams should develop their own charters as soon as possible after team formation. This will ensure that all members quickly become aware of their roles and the roles of other team members. The team mission and goals should be written to minimize conflicts resulting from misunderstandings or hidden agendas. Conflicts of interest and goals among team members should be resolved early in the life of a team by making sure that everyone understands the team's mission and goals and are mutually committed to achieving them. All affected stakeholders and their management should be signatory to the charter. This approval, or buy-in, helps eliminate, or at least mitigate, many of the problems common with operating in a team environment such as the following:

(1) Lack of direction or vision that causes the team to constantly try to define or redefine its objectives.

(2) Power struggles between the team and management or with other organizations outside the team.

(3) Infighting between teams because of ill-defined roles and responsibilities.

C. Charter Elements

Each charter should have the following elements:

(1) Team Name.

(2) Team Mission/Objectives. Provide an overall description of the mission or purpose. Describe specific objectives or tasks to accomplish the mission. The purpose statement of a team does not need to be long, but it must contain at a minimum the following critical elements: identify the customer for whom the team is working; know the end product the team is supposed to produce; anticipate life of a team; and even more importantly, write in a manner that permits it to be understood by all members of a cross functional team. Therefore, the team's mission or purpose should not be too technical or contain language that is too biased toward a particular functional area.

(3) Description. Specific metric that measures objectives described above.

(4) Scope of the Team's Responsibilities. Provide a description of the work to be accomplished. Include key requirements, schedule, output(s) required (such as communications requirements like periodic informal reports, etc.) and budget cost authority.

(5) General Operating Guidelines. Provide a general description of how the team will function. This section may reference existing guidance or directives for the conduct of teams. Certain provisions may be amplified such as paths of communications, sites/locations of team activities, relationship of the team with other teams (reporting structure, interfaces), means of communications, degree of empowerment of individual members, etc.

(6) Team Member Individual Responsibilities. Describe member responsibilities by function, i.e., program manager, combat developer, Army evaluator, etc. Limitations to full empowerment of particular members must be noted in this section.

(7) Customers/Interfaces. Identify all agencies and names of key people that will receive the team's product(s). Also include organizations and names of key people with which the team will interface.

(8) Authority. Identify key authority required to successfully accomplish the team mission. This authority may include team budget/cost responsibility, team task agreements, team schedules, plans, procedures, etc.

(9) Signature Page. Members will be identified by functional area and identified as core or shell members. The signature page will include space for both team members and their first line supervisors to sign. Supervisory signatures authenticate a member's degree of empowerment.

(10) Chartering Official. If this is an appointed team, there should be a signature block signed by the chartering official(s) to enforce the authorities given to the team and described earlier in the charter.

D. Deviations

The above is not a fixed format and should be modified to fit the needs of the team. As a minimum, it should contain the name of the team, the team objective(s), the scope of the team's responsibilities, the discipline or function by team membership, and the authority delegated to the team. The formality of the charter is at the discretion of the chartering official.

In the case where a charter is provided to the team, internal operational guidelines and responsibilities still need to be developed by the team itself and documented in some other document. With a self-directed team and a self-developed charter, this information can be in the charter itself. An example charter is provided in Appendix D.

E. Revalidation of the Charter

If the team is in existence a significant amount of time or if the team's mission changes significantly, the charter may need to be revisited and revalidated by the team members, the chartering official(s), and the members' supervisors. Portions of the charter may need to be changed based on changed conditions.

F. Things to Consider

When contemplating starting a team, consider the following issues associated with the team, its purpose, and its charter:

(1) Does the team purpose set the stage for all other actions?
(2) Is there a viable reason for existence?
(3) How long will the team be in existence?
(4) Who are the team's customers?
(5) What is the team's product(s)?
(6) To whom does the team report?
(7) Are all of the above clearly spelled out in the charter?

TEAM MEMBER SELECTION

Introduction

A variety of people with different skills and who play different roles must all come together to make a team successful. Selection of qualified personnel to serve as team members is obviously very important. The appropriate mix of technical skills is necessary to ensure the team can accomplish its mission; but while technical skills can generally be readily identified and assessed, non-technical skills (ability to work with others, decision making, mutual commitment) are much harder to assess when selecting members. Other participants in the teaming process include mentors and facilitators who can help guide the team through problems. You can't always pick your team members but to the extent you can, consider the following guidelines:

A. Participants

(1) Core Members - Core members should be from the organizations/disciplines that are required in the day-to-day operations of the team. Core members should ideally be co-located or meet regularly to work together toward their common goals. Examples of core members are a Project Leader, a Systems Engineer, an Acquisition Specialist, a Product/Quality Assurance Specialist, a User, a Contractor, etc.

(2) Members - Shell members are from organizations/disciplines that are not required in the day-to-day operations of the team but are required periodically or just at certain times in a team's life. Shell members can work on several teams and usually do. Examples of shell members are specialists in Safety, Legal, Packaging, Human Engineering, Testers, etc.

(3) External Experts - External experts are experts in a particular field who can be called upon for advice at specific times when the core and shell members of the team do not have the experience or background to solve a particular problem or task.

(4) Mentors - A mentor is usually someone in a position to advise and give guidance to the team. This is especially important when the team encounters a problem or roadblock that it doesn't know how to handle on its own. Mentors are usually higher-ranking people who have worked on similar team projects/efforts. Mentors can provide lessons learned from experience and a fresh perspective to a problem.

(5) Team Leaders - The choice of team leader is a critical decision and can often affect the success or failure of a team and may change as the product matures through various program phases. Generally, team leaders are officially appointed from the organization that has the lead in the program. This appointment can be documented in a charter or Appointment Letter. Similarly, the appointment can be less formal and accomplished through a verbal tasking. This varies by command. There are significant benefits associated with the official appointment methodology and whenever possible that approach should be used. The team leader often has the best working knowledge of the program and therefore helps select the most appropriate functional area representatives to be on the team. For long-term teams, the assignment of the team leadership role can change over time as different functional area leadership skills are required.

(6) Facilitator - While it is not mandatory to have facilitators, they can add much to the team by enhancing team building, problem solving, and drawing out the members' creative ideas. The role of the

facilitator is to keep team members focused and moving. If the team is stalled, the facilitator can intervene and may be required to bring closure to the issue. The team will generally be made up of multi-disciplined members. During discussions, every team member should have an opportunity to share. If one member is dominating the meeting, it is the responsibility of the facilitator to move the conversation back on track and ensure that everyone has the opportunity to participate. This role can be performed by the team leader, a skilled team member, or (most generally) an outside trained facilitator.

B. Team Structure

A team often consists of core and shell members with external experts and a mentor(s) available when the team needs them. Core and shell members can vary over the life cycle of a program/project. For example, a configuration manager may be a shell member early on during the development phase, then become a core member during the production phase, and then back to a shell member again during the sustainment phase.

The person responsible for leading the effort should determine the makeup of the team, what disciplines are required to complete the effort on time within budget and with the assets available to him/her. The team leader should assemble the team by selecting team members based upon their skills and backgrounds. When requesting team members from another organization, request a person with the skills you require and avoid requesting persons by name. Every organization has someone who is the best at what they do and he/she cannot be assigned to every team.

The guiding rule of team membership is to involve all areas/organizations that have a stake in the team's project/effort. It is better to be too inclusive than to be exclusive and leave out an area that should be involved and could object to or derail the team's efforts later. Here is a list of disciplines to consider for your team. This list is not all-inclusive, nor do you need everyone listed below on every team. The purpose of this list is to make you think about whom you may need on your team and shows you some of the disciplines you may not think about that should be on your team.

Acquisition
Configuration Manager
Contractor/Subcontractors
Human Engineering
Legal
Logistics
Maintenance
Packaging
PEO
Other Materiel Developers
Item Manager
Threat System Integrator
Trainer
Evaluator
PM
Product Assurance
Production Engineer
Safety
Simulation and Analysis
Systems Engineer
Testers
User/Customer
Environmental

Once you have your team members selected, it would be a good idea to have all members list their skills and what they can offer the team. You may have a person who presently works in one area but has skills in other areas. If you have each person list his/her skills, you will have a better understanding of your team's strong points and where your team may be weak. You could then eliminate some of your weaknesses by adding another member with that skill or replace one of your members with someone who has the required skills you need.

C. Selection of Appropriate Skills

Most of the discussion up to now has focused on obtaining the correct mix of technical skills either through selection of team members or through additional training. An equally important consideration, but one you have much less control over, is "teaming" skills. Ideally, you want people who can work well together, who will respect one another's opinion, who are all strongly committed to the success of the team, and will carry their share of the work. It's very rare to successfully pick individuals right from the start who possess all of these characteristics; however, studies have shown that such skills and behaviors can be learned and acquired through training, use of outside facilitators, and by having demanding, performance-oriented goals that require member collaboration to meet.

KICK-OFF MEETING

Introduction

One of the first actions a team will undertake is to hold a kick-off meeting. It is important that the kick-off meeting be integrated into the program schedule and notice provided to members well in advance so that attendees (i.e., new members) feel the project is under control and stands a good chance of succeeding. A kick-off meeting with no set agenda or direction gives the impression that the team will flounder for the rest of its existence. Such an experience will turn people off rather than fire them up.

A. Why have a Kick-Off Meeting?

A kick-off meeting is necessary to introduce team members to each other; to give all members a common understanding of the team's mission or task; and to begin developing a plan for accomplishing that mission/task. The kick-off meeting will provide the first impression of the team members and the team leader; therefore, it is an important meeting. This will allow team members to become familiar with each member's area of expertise and get acquainted with each other. Each team member brings something unique to the team. Team members need a time of sharing information on experience and background. During this time, members have an opportunity to learn about the diversity of other team members. The first meeting should include greeting the members, warm-up activities, explanation of goals and purpose, and definition of team members' roles.

B. Who should attend the Kick-Off Meeting?

Given the above activities of the kick-off meeting, it is vital that all team members (core and shell), mentor(s), and facilitator (if used) attend.

C. When to have the Kick-Off Meeting

Once the mission/task has been identified and team members have been selected, it is time for the kick-off meeting. This meeting should set the tone for subsequent meetings. It is imperative that the kick-off meeting be well organized and the logistics for the meeting considered ahead of time.

Prior to the meeting, the team leader (and facilitator if one will be used) should establish the agenda, review the team mission/goal, and identify any existing historical data that may be available. The agenda should include short team building activities that allow team members to become acquainted and perform the task at hand. The agenda should be reviewed and any additions and/or deletions should be made. If the team is to select its own leader, it should do so at the kick-off meeting after the mission has been presented but prior to getting into the technical aspects of the effort. In this case, an outside facilitator or temporary leader will have to set up the kick-off meeting and prepare the agenda.

The members should be notified in advance of the time and place of the meeting. The meeting area should have sufficient tables, chairs, markers, flipcharts, tape, and other supplies. Responsibility for assuring that

the meeting place is in order and all necessary supplies are available may be rotated among the members for subsequent meetings. Subsequent meetings should be held at the same location if possible.

D. What are "The Ground Rules" of the Kick-Off Meeting?

It is important to have ground rules for how the team will operate. Some sample ground rules follow:

(1) Meeting Notification - Once a team has been chartered, a meeting place and time should be established. Procedures should be in place to notify members of meetings. It is best if the team can meet at the same time and same place for each meeting. However, if a change must occur, it is important that each team member is notified of the change.

(2) Meeting Attendance - Some rules are more important than others. One of the most important rules is attendance. It is imperative that all members place high priority on attendance. One team member missing a meeting can severely impede the progress of the team. Each team member has a special skill or role to bring to the team. An absent member may possess the expertise that is needed at that particular meeting.

(3) Meeting Etiquette - Team members should be prompt. Once the time, place, and length of meetings have been established, each team member should make every attempt to be on time. Time is valuable to each member and when team members are not on time, confusion may arise during the course of bringing a late arrival up to date on what has already occurred in the meeting. Breaks should be well defined as to when they will occur and the length of the break. The length of the meeting should also be respected. If a meeting is scheduled for one hour, it should not last longer without the consent of the team.

(4) Participation - Participation from each team member is a must. Each member will have a different background, a different degree of creativity, and a different area of expertise; therefore, each member makes a contribution to the team. The team members should be able to speak frankly and freely. Each member should listen attentively while others are speaking and have no side conversations. There should be trust, candor, and openness among all members.

(5) Meeting Disruptions - The "100 mile rule" should be enforced. A team member should not be called away from a meeting unless the interruption is so important that the member would be called away if the meeting was 100 miles away.

(6) Decision-Making - There are three basic ways for teams to reach decisions: (1) team leader decision, (2) majority vote decision, and (3) consensus decision. A general rule of thumb is to strive to reach consensus decisions whenever possible. This approach maximizes team member "buy-in" and support for the decision. Consensus decisions also require members to listen, respect differing opinions, be receptive to different ideas, and are willing to put the team's mission/goal ahead of parochial interests. For new teams, consensus decisions can also be the most time consuming decision method and, in some cases, will not lead to a decision at all. Depending on the level of decision, the timeframe of the team's work, and the maturity of the team, one of the other decision methods could be more effective. Teams that haven't been together very long, haven't "jelled" into an effective team, or have a very short existence can try to reach consensus decisions, but should quickly switch to either leader decision or majority vote decision methods if consensus can't be reached in a reasonable amount of time.

SOURCES:

Basic Facilitator Development Course Manual with Teach Notes, author Association for Quality and Participation, 1996.
Team Building: Blueprints for Productivity and Satisfaction, edited by W. Brendan Reddy, Ph.D., with Kaleel Jamison, 1988.
The Team Handbook, Peter R. Scholtes, 1988.

FACILITATOR

Introduction

Much has been written about the need for and use of facilitators to help a team learn to be productive. While this has been the case for many teams, it is important to realize that not all teams need facilitators or at least not outside facilitators. We also need to understand the difference between an outside facilitator and a team member having facilitation skills.

A. What is a Facilitator?

Facilitation skills are important to team operation. The team leader, a skilled team member, or a trained outsider can perform facilitation. Regardless of the person performing the facilitator function, the responsibility of a team facilitator is to aid and assist a team to run smoothly and provide a structured environment for team discussion. The facilitator's chief responsibilities are:

(1) Keep the discussion focused on the topic and moving along

(2) Intervene if the discussion fragments into multiple conversations

(3) Tactfully prevent anyone from dominating or being overlooked

(4) End discussion

(5) Assist in decision making

In order to be qualified to perform this role, a facilitator must be trained in problem solving techniques, effective communication, interpersonal skills, and team dynamics. If outside facilitators are used, it is important to note that the facilitator does not need to know all aspects of the team's task or be part of the organization to be effective. The role of the facilitator is to use techniques that will get the team members to communicate effectively and to solve complex problems.

Facilitators encourage participation from each member. Often times the best ideas may go unsaid because new ideas, or unpopular perspectives, are risky to put forward. In other situations, who offers an idea may influence the team's reaction to it. The facilitator must create a structured environment that allows free exchange of ideas regardless of their risk or source.

It is not the responsibility of the facilitator to change team member behavior, but to only provide insight and information that may enable team members to decide whether or not to change their behavior. If they decide to change their behavior, the facilitator helps them learn how to change. However, it is the facilitator's responsibility to determine if the team acts effectively. Facilitators, and teams themselves, can use the following criteria in order to determine team effectiveness:

(1) The services or products that the team delivers meet or exceed the performance standards of the end user/customer.

(2) The process and structures used to carry out the work maintain or enhance the capability of team members to work together on subsequent team tasks.

(3) The team experience satisfies rather than frustrates the personal needs of the team members.
The above criteria can be used to identify which factors and elements that contribute to team effectiveness are missing or present, to decide how to intervene to help a team become more effective, and to determine whether facilitation alone can improve the team's effectiveness.

B. Outside Facilitator

In some cases, the team leader is too busy moderating the meeting, and all other members are found too parochial to serve as good facilitators. In these instances, an outside facilitator can be brought in who must be substantially neutral and have no decision-making authority. Because the facilitator does not get involved in the content of decisions, he (she) is not directly responsible for what the team decides. However, because the facilitator is involved in the decision process, he (she) is responsible for helping the team consider how its process may lead to more or less effective decisions.

Outside facilitators can be particularly effective if a team is struggling to be successful. While a certain amount of struggling and backtracking is normal, if the team can't seem to get out of this mode after several internal attempts, then an outside facilitator is called for. The facilitator can lead the team to revisit their basic ground-rules (mission, goals, and operational guidelines), make sure they are understood and agreed to by all, and possibly suggest changes that will improve team behavior.

Outside facilitators are also useful for teams just starting out if no one within the team possesses strong facilitation skills. In this case, the facilitator can help the team to get started on the right foot.

C. Facilitator Activities

(1) Intervention**.** A facilitator should use the following steps to diagnose-intervene in the team process:

- Observe the behavior in the team, watching behaviors and patterns but open to identifying other behaviors not immediately recognizable as significant.
- Infer some meaning from the behavior.
- Based on the observation and inference, decide whether to intervene in the team.
- Describe observations to the team.
- The facilitator and team test the inference the facilitator has made and decide whether it is accurate.
- If the facilitator and team agree, the facilitator then helps team members decide whether and how to redesign their behavior to be more effective.

Facilitators or team leaders should take several actions at the beginning of a meeting that can improve the structure and process of the entire meeting. They are:

- Make introductions (if new people are present).
- Check for outcomes and concerns.

- Agree on the agenda and time allocation.
- Agree on the process, including ground rules, to be used during the meeting.

Similarly, at the end of each meeting, the following actions should be taken:

- Review decisions and plans for action.
- Schedule the next meeting and agenda.
- Do a self-critique.

(2) Team Behavior. One of the initial tasks a facilitator should encourage a team to undertake is to identify what kinds of behavior are expected and not expected of them. Team members should agree to follow a set of ground rules. The following ground rules describe the principles for effective team discussion and decision making:

- Test assumptions and inferences.
- Share all relevant information.
- Focus on interests, not positions.
- Be specific – use examples.
- Agree on what important words mean.
- Explain the reasons behind one's statements, questions, and actions.
- Disagree openly with any member of the group, but keep the disagreement directed to the issue or position, not towards the individual personally.
- Make statements, then invite disagreements and solutions.
- Jointly design ways to test disagreements and solutions.
- Keep the discussion focused.
- Do not take cheap shots or otherwise distract the team.
- All members are expected to participate in all phases of the process.
- Attempt to make decisions by consensus.
- Do self-critique.

(3) Problem Solving. Facilitators may assist the team in solving technical problems by encouraging the use of the following problem solving steps:

- Define the problem.
- Establish criteria for evaluating solutions.
- Identify root causes.
- Generate alternative solutions.
- Evaluate alternative solutions.
- Select the best solution.
- Develop an action plan.
- Implement the action plan.
- Evaluate outcomes and the process.

SOURCES:
The Skilled Facilitator – Practical Wisdom for Developing Effective Groups, by Roger M. Schwarz. Jossey-Bass Publishers.
The Team Handbook, by Peter R. Scholtes, Joiner Assoc. Inc.

COMMUNICATION

Introduction

A fundamental issue facing all teams is communication. It is critical to the operation of high performance teams. There are many levels of communication. Those are between team members, between teams, between teams and their customers, and between teams and their management.

A. Between Team Members

The central tenet to an Integrated Product Team (IPT) (a special type of team) is the idea of members from multiple disciplines working together on a common task or goal. It will be impossible to coordinate those differing actions without strong communication between team members regarding what they are doing, why they are doing it, and how it may impact the actions of other team members. Team meetings are an excellent place for members to share this information with one another. In this forum, opportunities to better understand the actions of your fellow team members surface. Undoubtedly, the action of one member will impact the work of another. The team meeting is the place to find that out. It is also the place to seek synergy of efforts. The work of one member augments or assists the work of another. Finally, this is the place to look for the duplication of work or work that undermines others. Each team member must not only have a clear understanding of his/her own work but also that of his/her teammates. A good team can conceptually fit all the pieces together to see the overall effort and how the team goals can be achieved.

When decisions are required or problems are being analyzed, it is important that members communicate in another way. The critical item is sharing of ideas and views so that everyone understands the position of other members and all ideas are put on the table for consideration so the optimal solution can be reached. Not all team members are equally willing to participate and provide input at team meetings. It is, therefore, important for the team leader to make an extra effort to coax input from the more reticent members.

Face-to-face meetings are not the only mechanism for information sharing. When team members are not physically co-located, other electronic methods can and must be used. Depending on the level of importance of the information, and how it needs to be used, simple electronic mechanisms such as e-mail may be sufficient. In more advanced cases, the team may need to concurrently view and manipulate the information; have on-line conferencing or "chat" capability; or be able to check members' schedules and arrange appointments real-time. A generic line of software products known as "Groupware" is available that provides these capabilities. Whenever software solutions are used, it is important for the team to select, early on, what their "standard " systems or formats will be. If the group can't standardize on specific software packages, then interface standards have to be sought. Rich Text Format (RTF) is a standard text format that many different commercial word processing software packages can read and create.

The good work that teams do to hold effective meetings is lost if the team doesn't document and record the significant actions and decisions that occur during the meetings. Each team meeting must have a recorder. At a minimum, it is the recorder's job to record all decisions and assigned actions. This is the only way that actions and responsibilities can be tracked and an official record of team decisions maintained. It can also be beneficial for the recorder to record a brief synopsis of all major agenda items so that absent members can be brought up to speed quickly just by reading the meeting minutes. Often times, a team library is established as the official repository of all team documentation. Meeting minutes, team products, reference materials and guidelines are all kept there.

B. Between Teams

In the case of complex weapon system development, often times several teams are formed to address the multitude of tasks. Due to the interdependencies between tasks and the interfaces between team areas of responsibility, it is important that teams communicate with each other. Information must flow between co-equal teams (horizontal alignment) as well as hierarchical teams (vertical alignment).

Horizontal team communication is often difficult since teams aren't sure what information other teams need. The information needs may vary between other teams. Normally this issue is handled by the creation of an Integration Team. The Integration Team is made up of one member from each of the horizontal teams. The job is to identify interfaces between teams and their tasks and ensure that the necessary information is communicated at the Interface Team meetings. This team also ensures that any common practices or procedures that will be standardized among all teams are known and used.

Vertical team communication is equally important and normally relates to teams that are subteams to a higher level team. An example would be the case of the automobile industry where a team responsible for engine development would be a subteam under the team responsible of the overall vehicle. Other subteams for other major components would also exist. If multiple subteams exist, then the situation is identical to the Integration Team example described above. If only one subteam exists, then it reports directly to the higher level team.

C. Between Teams and their Customers

In most cases of teams that create or manage a product or process, there are customers who will use that product or process. One of the goals of the team should be to achieve a high level of customer satisfaction with their product or process, and the only way to obtain this is by seeking customer feedback. Some of the more effective teams include customers as team members. This not only allows for customer input but also gives the customer a voice in the actions taken by the team. The customer is the co-owner of the resultant product or process and thereby more favorable toward the results. Customers may not be regular full-time members who attend every meeting, but rather ad-hoc members who participate at specific events or points in time.

D. Between Teams and their Management

While many textbooks recommend the use of self-directed work teams, most teams are not totally self-directed or empowered and must answer to at least one higher level of authority or management. This type of communication normally takes one of two forms: informing on the status of the teamwork efforts or asking for approval for a decision or to take an action.

Frequent status updates are important to keep managers aware of team progress and actions. Teams that try to keep their activity secret run the risk of alienating management who then must "order" a task review to find out the status. Managers don't like to be "out" of the information loop and may view this tactic as the team hiding problems. Regular update mechanisms can be simple things such as inviting management to meetings once a month or sending regular E-mail status of actions. In some cases, more formal project reviews are needed. Proactive use of informal mechanisms can pre-empt the need for formal reviews. Whichever mechanism is used, it should be agreed to early between the team and management and then regularly followed.

The need to seek approval for actions or decisions is directly related to the amount of empowerment the team is given. The level of empowerment should be spelled out in the team charter. For areas/issues requiring higher-level approval, the exact approval mechanism (decision briefing, information paper, and project review) must be agreed upon by the team and the decision maker(s) and followed religiously.

TEAM DECISION MAKING

Introduction

Decisions can be made in one of three basic ways: voting, striving for consensus, or autocratically made by the team leader. Regardless of which method is chosen, if the group does not agree on how decisions will be made or, worse, does not know how decisions will be made, your team will experience undue stress and delay when the tough decisions have to be made and there are opposing opinions within the group. The choice of which decision mechanisms will be made depends on the makeup of the team and the team leader. Your team could decide to strive for consensus for decision making but switch to another method if consensus cannot be reached. Below are four types of decision making processes for teams.

A. Voting

When voting is used to make decisions, a variety of different approaches can be used to gather member votes on the alternatives under consideration. Based on some defined majority of the votes cast, an alternative is selected and becomes the decision. Two of the many methods of "voting" are discussed below.

(1) Nominal Group - The nominal group technique is a structured, two-step voting method for decision making. It does not include the usual group interaction typical of brainstorming sessions. This method is effective when some group members are new or for controversial issues where the team may not be able to reach a consensus.

- Step 1: Brainstorming - First, define the task in the form of a question. Write the question on a piece of paper on an easel or taped to the wall so all members can see it.

  Second, have everyone write on a piece of paper possible solutions to the question. Do not allow discussion or talking at this time. When everyone has finished, ask each person to read one solution from his or her list. Write down every solution offered. Continue until all solutions from the personal lists are written down. No questions or criticisms are allowed while the proposed solutions are being written.

  Third, when all solutions have been written down, the facilitator will ask all team members if they have any questions about any of the proposed solutions. The person who proposed the solution should answer the question. Other members are welcome to join the discussion to clarify any solution. The facilitator can change the wording of any solution if the person who submitted it agrees.

  Fourth, when all questions and clarifications are complete, the facilitator will condense the list of solutions as much as possible, deleting duplicates and combining similar ideas into one.

  Fifth, strive to reduce the amount of solutions to no more than 50. The originator can withdraw less serious solutions. Team members can recommend that other solutions be withdrawn, but withdraw them only if the originator agrees. If there are still more than 50 solutions, use multi-voting to reduce the number to 50 or less.

- Step 2: Making the decision - Give each team member 3 x 5 cards or pieces of paper. The number of cards should be approximately 4 cards each for 20 solutions, 6 cards each for 20 to 35 solutions and 8 cards each for 35 to 50 solutions. Each member then selects the solutions he or she thinks are best and writes one solution per card. Then they assign a point value to each solution chosen. In an 8-card situation, the best solution is given an 8; the least valued solution of the 8 picked would receive a 1. Similarly for the 4 and 6-card situations, highest points being 4 and 6 respectively.

  Collect the cards and tally the votes. The solution with the highest points becomes the group's solution. If time permits, the team may want to discuss the results. If the team agrees on the solution chosen, you are done. If members still disagree with the solution chosen, then the top 2 or 3 solutions could be further investigated.

(2) Multi-voting - Multi-voting is a method used to reduce a large number of solutions quickly down to a manageable number of possible solutions for investigation.

- How to Multi-vote. First generate a list of possible solutions and number each solution. If two or more solutions are similar, combine them. Next have all members choose several solutions they think are best and write the number of the solutions on a piece of paper. Allow each team member to create a list of approximately one-third of the total number of solutions. After all members have written down their choices, tally the votes for each solution. Eliminate those solutions with the fewest votes. Repeat this process until there are only a few solutions remaining. If there is no clear favorite, have the team discuss which solutions should be considered or have one final vote.

- The main drawback to any "voting" method of decision making is the possibility that since one or more members didn't select the final solution, they don't necessarily agree with it or support it. The team leader or facilitator should be on the lookout for any "hard feelings" resulting from voting and may need to spend some additional time with those individuals to convince them of the positive aspects of the decision. On the other hand, voting is a relatively quick decision method that also ensures that at least a majority of the team agrees with the decision.

B. Consensus

A consensus is a decision reached by the team that everyone can live with and no one opposes. A consensus decision is not necessarily a unanimous vote since some members may not feel it is the best solution. It also, therefore, does not necessarily result in everyone being totally happy. But a consensus decision should indicate that all members can live with the decision, can support it, and will do their part to implement it. Consensus decision making, particularly in the early stages of team formation, requires time, participation from all members, good listeners, and creative thinking.

Consensus results from a meeting where everyone has a fair chance to express their opinions on the topic, and discussion results in a solution that everyone is not necessarily happy with but all can live with. Consensus can be a time consuming method of arriving at a solution. In the case of a new or dysfunctional team, it may not be possible to reach a consensus decision. If this situation occurs, either more information must be presented to change someone's position, an outside facilitator must be brought in to try and lead the team through an objective evaluation of the alternatives, or another decision method should be used.

C. Team Leader Decisions

The idea of the team leader making all decisions is a throwback to the traditional "supervisor-employee" relationship. While this approach is easy to use and the fastest way to make decisions, it generally suffers from a lack of information and opposing viewpoints. Teams operating in this mode tend to accept the leader's decisions unquestioningly and fail to provide other information or perspectives that could have led to a different, possibly better decision. In its strictest form, it also fails to make use of team member synergy to develop innovative solutions and better informed decisions.

To counter these problems, many autocratic team leaders modify the process to encourage team member input and debate prior to decision. While the decision still rests with the leader, they provide an opportunity for members to surface additional information or opposing viewpoints. This improves the decision while giving members some sense of participation.

One further note of caution, this decision method can result in a series of sub-optimal (if not outright incorrect) decisions that may be driven by the leader's personal biases and views.

D. Conclusions

Teams must be able to effectively make decisions in order to perform their missions. In the final analysis, it is recommended that most teams strive to reach consensus decisions, but if that proves impossible after an appropriate amount of time and effort, then switch to one of the other two methods. Most new teams should start out using this two-tier decision approach. The higher the performance goals that the team needs to achieve and the more "mature" the team is in their teaming behavior, the more often they can reach consensus decisions.

CONFLICT RESOLUTION

Introduction

We define conflict as disagreement, doubt, and questioning. This definition should not imply only the negative outcomes however. When properly managed, conflict can do much good for a team. Its biggest potential benefit is to increase the information potentially available about a decision, issue, or problem. Problem-solving and decision-making teams can make good use of conflict within the team to discover new solutions to problems.

Conflict resolution can be thought of as a process in which the individuals in conflict, and others in the team, must identify the problem and plan measures to correct/resolve the sources of the conflict.

A. Types of Conflict

The team leader should be on the lookout for conflict as it is a normal by-product of human interaction.

Conflict can be thought of as any opposition or antagonistic interaction based on scarcity of power, resources, social position, or differing value systems.

Conflict has two sides - functional/constructive and dysfunctional/destructive. Conflict by itself is neither good nor bad. The team leader needs to assess the results of any conflict and then take appropriate action as deemed necessary. Until the conflict has become dysfunctional, it may be best not to intervene.

The benefits of functional or constructive conflict are increased effort, improved performance, enhanced creativity, and personal growth and development. These positive benefits result when the team takes the conflict situation and intentionally uses it to resolve differences and reach a common understanding or plan of action. This use of conflict allows individual team members to voice his/her concerns and opinions, with one or more members ultimately changing their positions on an issue either because of new information or because of a realization that it is for the betterment of the team or its goals. Since there is no guarantee that conflicts will always end in a constructive or positive outcome, their handling is difficult and risky.

If conflict turns dysfunctional, the results include indecisiveness, resistance to change, emotional outbursts, apathy, and increased political maneuvering. Any or all of these can destroy a team if not overcome.

The leader needs to resolve or neutralize conflict once it has become dysfunctional.

B. Common Causes of Conflict

(1) Ambiguous or overlapping areas of authority or responsibility

(2) Competition for limited resources - money, people, power, information

(3) Lack of or inadequate communication

(4) Time pressure

(5) Unreasonable standards, rules, policies or procedures

(6) Personality clashes

(7) Perceived or actual differences in status, pay, fringes, etc.

(8) Unrealized expectations

C. Dealing with Conflict

The best method for resolving conflict is problem solving.

Problem solving involves a process of open, honest communication among all members of the team, including the leader. In this process, the problem is defined, causes are identified, alternative solutions are listed, and a best solution is arrived at via a group decision process. The three most common methods of problem resolution are:

(1) New Information - new information is provided that changes team member opinions on the issue at hand. The conflict is then resolved.

(2) Superordinate Goals - appealing to team members to put their differences aside in the interest of the larger interest/benefit of the organizational task.

(3) Compromise - the differing parties/subgroups are asked to give a little in order to reach a common ground in the middle.

Other methods of dealing with conflict include:

(1) Forcing - sometimes, in the interest of time, the leader steps in and directs a solution for a quick fix.

(2) Smoothing - an approach that involves asking people to “be nice to each other” and everything will work out. Emphasis is placed on achieving better human relations. (Superordinate goal is more an appeal to the task for the good of the organization; smoothing is an appeal to a person’s human relation skills or motives.)

Problem solving is the only conflict resolution strategy that really attempts to remove the source/cause of conflict. It is generally best in the long run but usually takes more time to play itself out. When time does not allow for problem solving, one of the other "conflict control” strategies may be used, but it should be recognized that they are of a short-term, quick fix nature. Also, from what is known about the stages of team development, problem solving would be a strategy more applicable for a team that had had some experience at working together and had achieved some measure of maturity.

In summary, conflict resolution in teams is a very important process in the manager's leadership efforts to bring his/her team to an effectively functioning and cohesive work team. It requires concerted planning and effort, but the long-term dividends make the journey/process worthwhile.

TEAM EVALUATIONS & RATINGS

Introduction

Measuring team-related performance should be approached in two directions:

(1) Team Level: Measuring the team's performance

(2) Individual Level: An individual's contribution to the team

Both team and individual member performance should be periodically assessed to determine: a) Is the team accomplishing its goals and objectives? and b) Are there opportunities for improvement? Within the government, performance assessment is generally related to individual performance appraisals that can result in monetary or other forms of awards. Workers' natural concerns about their performance appraisals and the impacts they can have on their jobs have made the issue of "team" performance assessments a very contentious one.

A. Federal Performance Appraisals

Within the Federal Government, there is a requirement for the annual rating of employee work performance. Within the context of formal performance appraisal requirements, rating means evaluating employee or group performance against the elements and standards in an employee's performance plan and assigning a summary rating of record. The rating of record is assigned according to procedures included in the organization's appraisal program. It is based on work performed during an entire appraisal period (usually one-year). The rating of record has a bearing on various other personnel actions such as granting within-grade pay increases and determining additional retention service credit in a reduction in force.

Although group performance may have an impact on an employee's summary rating, it is the Office of Personnel Management's (OPM) position that a rating of record is assigned only to an individual, not to a group.

The Army's performance appraisal program, the Total Army Performance Evaluation System (TAPES), tries to create as much equity as possible in the way military and civilian employees are evaluated. Therefore, the Army's traditional five-level performance appraisal system was modeled after the military efficiency reports used for enlisted personnel and includes many similar features.

B. Team Ratings

At the Team Level, the team must be measured on its work results or products. These types of measures could include the number of cases completed; the use, acceptance, and understandability of the team's final report; or the number of customer requests for the team's report. The team can also be measured on its internal group dynamics. These types of measures could address how well the team works together as a group; the effectiveness of team meetings; the ability of the team to reach consensus; and the team's problem solving techniques. The person or group responsible for giving team ratings must be identified early on.

C. Individual Member Ratings

At the Individual Level, an individual's contribution to the team can be measured on how well he/she works with fellow team members. Examples of these types of measures could include the degree to which the employee participates in team meetings; the employee volunteers for team projects; the employee communicates with members in a constructive and non-threatening manner; and if other members find that the employee is pleasant to work with and fosters cooperation. Employee work products that contribute to the final team product or service can also be assessed and verified. Examples of these types of measures could include error rates, the timeliness of the product, the number of suggestions made, or the accuracy of the data provided.

D. Alternative Approaches to Performance Appraisals

In light of the above information, supervisors find it difficult to evaluate both individual and team performance and, in some cases, aren't at all sure they should evaluate team performance. In 1993, the Office of Personnel Management's Interagency Advisory Group looked at different approaches used within the government and private industry. They found four basic approaches. They didn't try to pick one single approach as "best" or "the right one" but rather acknowledged that each had advantages and disadvantages. The four approaches are:

Approach 1 - Only individual performance is addressed. The appraisal does not include elements addressing team performance even though the person is a member of a team.

Approach 2 - Only individual performance is addressed; however, at least one appraisal element addresses the person's contribution to team performance.

Approach 3 - The focus is on the team's performance. The appraisal uses a combination of team and individual performance measures and at least one element addresses team performance.

Approach 4 - Performance is determined at the team level only. No individual appraisals or ratings are done.

Unfortunately, assessment approaches which use team ratings ONLY, with no individual elements included in the appraisal as is possible in Approach 3 or is the case in Approach 4, do not meet the current legal requirements regarding performance appraisals (5 U.S.C. Chapter 43).

If team performance elements are utilized in an individual performance appraisal, the following guidance should be kept in mind regarding appraisal elements:

(1) A critical element is a work assignment or responsibility of such importance that unacceptable performance on the element would result in a determination that an employee's overall performance is unacceptable. Because critical elements are limited to addressing individual performance, only the individual level measures of contribution to the team and individual results could be used as critical elements.

(2) Non-critical elements can be a dimension or aspect of individual, team, or organizational performance that is measured and used in assigning a summary level. In the past, "non-critical" meant "not as important." However, programs can be designed so that non-critical elements have as much weight or more weight than critical elements in determining the final summary level. Since it is only through non-critical elements that group or team level performance can be factored into an employee's summary level determination, using non-critical elements can be a useful tool for setting group goals, planning group work, measuring group performance, and providing feedback on group performance.

(3) Additional performance elements address a dimension or aspect of individual, team, or organizational performance that is not used in determining summary levels. Additional elements are used for various other purposes such as setting goals, providing feedback on individual or group performance, and recognizing individual or group achievements.

Private industry is making greater use of Approaches 3 and 4 where teams are being used.

E. Team Leader Input to Employee Appraisals

Within the Federal Government, the responsibility for preparing official employee performance appraisals rests with the supervisor. This can create problems when trying to evaluate the employee's performance on a team in which the supervisor is not a member. Rather than try to "guess" the performance or ignore it since it wasn't personally witnessed, the supervisor should solicit input from the team leader. It will still be up to the supervisor to decide how great a role this input will play in the employee assessment.

F. Self-Assessments and Improvement

Appraisals are not the only tools to examine team or individual performance. Less official mechanisms such as self-assessments can also be quite beneficial. In the case of self-assessments, the information is used solely by the individual or team to evaluate their performance and plan any corrective action they deem necessary. It is not used as a management evaluation.

One type of self-assessment tool that has received high praise is known as the 360° Performance Appraisal System. The U.S. Army Management Engineering College (AMEC) was one of the first government organizations to adopt this kind of system. It draws upon input from a variety of sources to provide useful information about the quality of individual performance. Sources of input include self, peers, customers, supervisors, and subordinates. Other government organizations have since adopted this system as well; however, because of Union concerns, its use has been restricted to a "self-assessment" tool rather than the source for the official performance appraisal.

All teams should use some type of self-assessment tool(s) to evaluate their performance periodically. It is important that the team as a whole, as well as individual members, assess their performance, compare it to their goals and objectives, and look for opportunities to improve. Unlike the formal supervisor appraisal, self-assessments can often times be more accurate, more detailed, and more likely to be believed because the inputs come from multiple sources and the analysis of the information is done by the team and members themselves.

SOURCES:
United States Office of Personnel Management, Technical Assistance Center
On-line Internet access at: http://www.opm.gov/perform/topics.htm

TEAM AWARDS

Introduction

Team recognition and team awards are both valuable tools. They can enhance team performance and solidify a team's identity. A team award can serve two purposes. One purpose, the most obvious, is to recognize superior past performance. The second purpose is to motivate employees to be sustained high performers. However, instituting a team awards program requires work and advanced planning. The process associated with awarding a team must be established early in the team's formation and agreed to by all team members. The team should research their MACOM's policy on team awards and find out if there is a Union negotiated team award procedure. None of this should limit any active, high performing team from pursuing an award.

A. What constitutes a team award?

(1) Definition: A team award is any recognition that is given to the entire team. It is based on the successful completion of a pre-established goal or a special act.

(2) Types of Awards: People are predisposed to think that all awards are monetary. Much of the management literature indicates that non-monetary gifts, or less traditional types of awards and gestures, might be most effective in motivating employees. Ideas, other than money and time off, that some teams have considered for their awards program include gift certificates for merchandise or services at a single business or group of businesses like a mall; savings bonds or Quality Team Honorary Awards. Teams should be creative when selecting the award that will best motivate them. The award should be as individual as the team. There are a number of books that address ways to motivate employees and reward teams. These books include 1001 Ways to Motivate Your Employees (Nelson, 1994) and Compensations for Teams: How to Design and Implement Team-Based Reward Programs (Gross, 1995).

(3) Restrictions: It is important to ensure that any award a team selects is in keeping with the Army's Award Regulation (AR 672-20). For example, even high performing teams need to have a supervisor's support. A supervisor is still the only one who can officially nominate for awards. A team must also be aware of the monetary caps placed on awards. For example, if the team's award is based on intangible benefits to the command, there is a $10K limit. Members of the team will divide that amount no matter how many members are on the team. Therefore, a well-informed team will ensure its award is in keeping with local and DA policies.

B. How do you give team awards?

A team can give an award in a number of ways.

(1) Standard Approach. Each member of a team is cited for his/her contributions to the team. The award can be evenly distributed or distributed in proportion to the contribution each member made. The team members or the supervisor can determine this contribution when making the nomination, and it must be equitable. An award that causes tension among team members defeats one of the two primary tenants of team awards.

(2) Alternative Approach. A team award can be written on one DA 1256 form with a single justification for several individuals. This is not standard practice for government organizations but is an effective way of recognizing team members for team performance. Additionally, this method ensures that

all members get an equal share of the award money. An additional revolutionary approach is for the team to establish an award that it deems to be important, then develop it and get approval to do it should they meet their pre-established goal.

(3) No Approach Exists. If there is no previous experience with team awards at your site, you may want to explore forming a Process Action Team with your Personnel Office and others to design a program that meets your needs and the needs of your command.

C. When to give a team award?

(1) Timing. Timing is everything. An award should be given promptly and publicly.

(2) Reasons. Team awards should be linked to preset team goals. Team awards should not simply be linked to annual cycles or annual rating periods. Generally, team goals are related to cost, schedule, or performance of their system. For example, if the team predetermines that it will Type Classify (TC) by December of a certain year, an associate stretch goal would be to TC a quarter early. Teams should also base their award on customer satisfaction ratings. It is obvious to state that a team should not reward itself or be rewarded unless the customer is satisfied.

D. Summary

Team awards are an integral part of the "Art of Teaming." They validate the actions of a team and recognize the team's contributions in a public manner. Teams themselves should explore those teaming awards that would be the most motivating to them. A high performing team will incorporate these things into its charter and concept of operation.

TEAM TRAINING

Introduction

An area that is often overlooked in the early stages of team formation is training. Some teams have blindly assumed that members all have the necessary skills and abilities to both come together as a high performance team and to successfully complete the technical requirements of the project. It isn't until much later in the project that the error of this assumption is discovered and, by that time, there is no extra time to allow for training.

There are two basic categories of training that are generally needed - team building training and technical training. In either case, it isn't mandatory that team members all have necessary team building and technical skills going into the team; those skills can be attained later through training. The important thing is planning up-front when those skills are needed and taking steps to ensure the necessary training is provided in time to support those needs. It is recommended that each team spend time early-on to evaluate their task/project, determine the required skills and abilities, evaluate the skills and abilities possessed by the members, identify any shortfalls, and then make plans to either add additional members possessing the needed skills or take training to acquire the skills.

As an additional consideration, numerous studies have shown that "just-in-time" (JIT) training is superior to all other forms of training. People learn best and retain the most information if the training is directly applicable to their jobs/projects and if the training is taken just before it is needed. This approach contrasts drastically with the all too common approach of providing training now just because it is available and hoping that eventually some of the people will have the opportunity to use it. Of course that opportunity may be months or years away!

Through a combination of careful organizational team implementation and internal team planning, the right training can be provided when it is needed and will be most effective. Organizational planning comes into play when the organization has a standard commitment and policy of providing all newly formed teams with basic training in team building, interpersonal skills, problem solving, and decision making. Internal team planning takes over when teams develop a schedule of the activities that will comprise their task/project. Based on that schedule, training can be arranged for just those members who need it (maybe all members) and just prior to when it is needed.

Let's look at the following two basic categories of team training in more detail:

A. Team Building Training

Team building training consists of all the training necessary for members to learn how to function together effectively as a team. This training should address issues such as:

(1) How to recognize different personality types and appreciate their strengths and weaknesses

(2) How to run effective team meetings

(3) How to make decisions

(4) How to rely on others for complementary skills/abilities to achieve a synergy that can exceed the sum of individual efforts

Such training does not have to be limited to one class or one instructor. It can stretch over many classes and, depending on the overall task/project deadline, over a timeframe of several months. Generally, a certain amount of "standard" team building training is provided at team formation. The team is allowed to begin working on its task and find ways of becoming a real team. An outside facilitator can check in with the team regularly to determine how it is progressing and what problems it is encountering. Most importantly, the facilitator can see how the team is meeting those problems since all teams encounter problems. Based on the particular situation, additional training may be needed to help address some of the team problem areas. For example, if a team is having difficulty reaching decisions, additional training may be needed on decision-making and goal setting. Please bear in mind that there should not be any stigma associated with the need for additional training. Teams progress at different speeds and levels. One team may encounter some initial problems, take additional training to overcome those problems, and turn into a true high performance team; another team may not think they have problems, won't ask for any additional training, and ultimately falls apart!

A key aspect of team building training is that the whole team should always take it together. Even if certain members have previously received similar training, they didn't have the benefit of hearing their current teammates' thoughts and ideas on the various team-building issues. It may seem perfectly logical to one member to have all decisions made by the team leader alone, while another member can only agree to consensus decision making. These two divergent attitudes must be discussed and a resolution achieved or the team is doomed to failure. Team building training is the place to hammer out these issues and reach common understanding and agreement.

Types of team building training can include:

(1) Member training – understanding yourself and others, communication, teamwork, managing change, managing stress, time management, creativity, and problem solving

(2) Leader training – coaching, meeting management, and handling "difficult" members

B. Technical Training

Technical training is a generic term that encompasses all training needed to perform the functional nature of the project. If the team is assigned to prepare and award a contract, then technical training in statement of work preparation, acquisition streamlining, best value source selection, and proposal evaluation may be in order. Depending on the type of contract, additional specialized training may be required by certain team members. If the contract is for environmental clean-up, then some members may need to become intimately familiar with EPA regulations and clean-up procedures. Unlike team building training, technical training can occur any time throughout the life of the team (although it must be prior to its need) and may be taken by only certain members rather than the entire team.

TEAM MANAGEMENT

Introduction

Good, effective teams don't just happen. It takes a lot of work by the team leader and all members and, more importantly, it takes planning! All teams face problems, but the effective teams plan ahead to identify and avoid problems if they can, or at least set mechanisms in place to deal with the problems they can't avoid. "Planning ahead" gives the team a big edge over a team that just waits to see what will happen.

One of the first things the team should do after coming together is develop a management strategy that details how the team plans on achieving its mission and goals. The strategy should identify major activities or events, member roles and responsibilities, milestone schedule, deliverables, required skills to achieve the mission, skill gaps, and a plan for filling those gaps (additional members, outside experts, member training, etc.). This effort should be started at the team kick-off meeting.

The team management strategy should be documented in either the team charter or another stand-alone document. The documented strategy serves many roles. It acts as a team "Code of Conduct" by describing how the team will conduct business and reach decisions. It acts as an orientation book for any new or replacement members joining after team initiation. It also serves as a brainstorming and task-planning tool causing the team to break the overall task into subtasks and determine milestone events and resource/expertise requirements for each.

The contents of a Team Management Strategy include the following:

(1) Rules of Conduct - Document how the team will conduct its meetings. All meetings and decisions should be recorded in minutes.

(2) Methods of Communication - Document all communication mechanisms, especially unusual ones such as E-mail, video teleconferencing, or internet web sites. In those cases, determine what the "team standard" will be. For example, which word processing software package will be used and which version? This is especially critical if there are off-site members on the team. Determine if any type of "groupware" software will be used to enhance virtual, real-time collaboration between members. Once again, deciding on a standard and making sure all members have it is critical.

(3) Decision Making - Document the method by which the team will reach decisions (team leader decides, voting, group consensus, etc). If different types of decisions will be made by different methods, then elaborate on those situations and methods.

(4) Conflict Resolution Methods - Document any special methods that the team will use to handle disagreements or conflicts. (This section may not be used by all teams.) Similarly, explain any use of Alternative Disputes Resolution (ADR) mechanisms if contractors are part of the team.

(5) Expertise Requirements/Sources - Determine the expertise required for the task and compare it to that contained within the team. Where a mismatch is identified, either additional team members will be required, short term "consultants" may be brought in, or training/research must be provided to enable team members to attain additional expertise.

(6) Training Requirements/Plan - Determine any team or member training needed to perform your mission. Determine sources and costs of that training. For all training, establish a training schedule so that training is provided in time to meet task schedules.

(7) Event Schedule - Break the overall task into subtasks and determine milestone events for those subtasks. This information is needed for internal as well as external (Chartering Official) monitoring of task progress. It is also required to help schedule training as described above.

(8) Team Evaluation - If the team decides to use some form of self-evaluation, either as a formal performance evaluation system or just for self-improvement, this methodology should be documented.

LEADERSHIP

Introduction

There is an ongoing debate as to whether leaders are created or are born. Regardless of your feeling on this contentious topic, good leadership is a critical element to having a successful team. Therefore, no book on teaming would be complete without a brief discussion about leadership. This section of the guidebook is to merely introduce you to some leadership concepts and leader roles. There are volumes of books and seminars and those who are put in leadership positions should continually seek out information to become a more effective leader.

A. Roles

It is important to understand that when you are assigned as a team leader, you have many roles and responsibilities. These roles are diverse and a small number of the roles are listed here.

(1) Time Manager - The sign of an effective leader is the ability to manage time appropriately. This means you effectively manage your own time as well as the team's time. Time is the only commodity that cannot be replaced. The ability to manage time correctly can often make or break a team leader. When you call a meeting, it must start and end on time. Additionally, when a deadline is established, it must be met. These may seem obvious, but you are probably aware of many deadlines that have not been met or meetings that have run too long. Both of those things are signs of an ineffective leader.

(2) Tasker - The job of delegating and assigning tasks is a difficult one. Many highly skilled people have difficulty letting go of tasks. They know that they could complete the task better then anyone on the team. Quite simply, it is not a team of one; your job as leader is to get the best product into the customer's hands in a timely fashion. If you are doing everything yourself, you don't need a team and, consequently, you aren't a team leader.

(3) Mentor - An important responsibility of a team leader is to provide sound advice and career management insights to team members. This can be an official role or one that is inferred, but it is important none the less.

(4) Rater - Many team leaders are not supervisors; therefore, in the TAPES system, they do not rate. These leaders should ensure that the employees' supervisors recognize their good work. Ratings should not be completed to meet some arbitrary deadlines. They must be viewed as meaningful tools that serve two purposes. Ratings assess past performance but also are important tools to enhance an employee's development.

(5) Disciplinarian - This is a difficult and unenviable task; however, it is a necessity of a good leader. It is important that the team knows that it will be held accountable for the tasks it fails to perform.

(6) Decision Maker/Problem Solver - Establish clear team decision-making norms. This should be done at the team startup. The team leader should work to maintain the established boundaries. This will prevent many problems. However, it is inevitable that both technical or personnel problems will arise and the team leader will have to make the decision or find an equitable solution.

(7) Coach - One of the most important jobs is being a coach. You have to select the best members for the team. You must provide a clear plan of action to team members so that the goal can be accomplished and you must provide support and encouragement along the way.

B. Skills/Characteristics

A critical part of being a leader is having the right set of skills to be creative and forward thinking. The Army has established a list of leadership skills it believes are essential for their Senior Executive Service and the Army Acquisition Corps members. Comparisons of those leadership characteristics are provided in the table below. Those same skills and competencies will make a team leader successful.

Comparison of Leadership Characteristics

AAC Leadership Effectiveness Competencies	SES Executive Core Qualifications				
	Leading Change	Leading People	Results Driven	Business Acumen	Building Coalition/ Communication
✔ Oral Communication					✔
✔ Written Communication					✔
✔ Problem Solving			✔		
✔ Leadership		✔			
✔ Interpersonal Skills					✔
✔ Self Direction	✔				
✔ Flexibility	✔				
✔ Decisiveness			✔		
✔ Technical Competence				✔	

C. Summary

Good leadership is an art rather than a science. Typically, one size does not fit all, and good leadership requires training and determination. The leader establishes the atmosphere and the operating norms for the team. A good leader is aware that each team and situation requires a unique, well thought out response. Leaders of teams should continually seek training and work to improve the skills they have and develop new ones.

TEAM PROBLEMS

Introduction

One of the key characteristics of effective teams is that they are made up of people with skills that complement one another as they work toward a common goal. However, bringing together such a group of individuals is not all there is to it. An effective team is a group of people with a high degree of interdependence working toward the achievement of a goal or the completion of a task (e.g., developing a product). All members of the team agree to the goal and agree that the best way to achieve the goal is to work together.

The synergy of a team is always potentially greater than the sum of the combined energies of its members and is effective only to the degree to which it is able to use its individual and collective resources. Team synergy requires thorough and deliberate actions from leadership. Leaders must be concerned with developing more cohesive and cooperative relationships among individual members, and this effort begins with identifying the unique group problems that exist in every team.

A. Team Dynamics

In discussing group problems, it is also important to realize that some of these problems might be related to the dynamics of the team. Teams, because they are made up of individuals, take on their own personalities. They do this as they develop. Many books will cite four recognized phases of team growth or development. These phases, in the order of their occurrence, are forming, storming, norming, and performing. During both the forming and storming phases, many group problems can occur and while often painful, this is normal. The team should work hard through these phases to establish goals and parameters. The latter two phases are associated with the team performing its defined mission. It is important to understand that like the individuals that make up the team, there will be periods during which the team may experience problems, and effectively working through these will pay dividends.

B. Identifying the Problems

A problem is any undesirable condition that interferes with the team's achievement of its goals and objectives. Identifying some of the problems that arise when bringing together a group of diverse people may help to head off some of the problems or effectively solve them when they arise.

C. Handling the Problems

The following paragraphs describe typical group problems that may arise and some suggested methods of dealing with them.

(1) Dominating Personalities. We've all been in meetings during which one person seems to dominate all other personalities in the room. They may speak louder, longer, and more forcefully than seems necessary. In some instances, this person may have more authority or influence than others but frequently just consume a disproportionate amount of the team's time in telling overlong anecdotes. The result, apart from loss of precious time, is that some members will react by withdrawing and finding reasons to miss meetings. There are some suggestions that may help leaders deal with such a situation.

- If the individual is in a position of authority or influence, he or she may discourage any discussion which might encroach upon that expertise, may use technical jargon to such a degree as to be incomprehensible, or may shoot down constructive suggestions as unworkable. The leader needs to establish an atmosphere of openness in all areas and demonstrate that any team member may explore any area. It may be necessary to talk to the "authority" off line emphasizing the need for team members to fully understand the process and operation and ask for their patience. Providing a single opportunity for that individual to share with the group their expertise and/or broader perspective may help.

- If a member continually dominates the discussion and takes advantage of every opportunity to share stories, the team will have difficulty staying focused on their objective. The leader may choose to establish limits for each member in the discussion. This should be accomplished within the team with all members agreeing to the limits.

- Keep in mind that when teams first form, it is natural for one or more "strong" members to assert themselves. It is also a natural tendency for others to fight them or to draw back and allow them to assume a leadership role. The more assertive members usually understand and are willing to help when asked to involve the more reticent members.

(2) Group Think. There are situations when agreement isn't healthy. If members are "going along" with what they perceive to be the team's position for reasons other than total agreement, this is sometimes labeled "group think." It occurs for many reasons such as fear of being the only one to deviate, fear of losing one's place on the team, fear of taking a risk, and/or loss of focus on the issue. Perhaps the team has elected to compromise rather than deal with the conflict that would arise if everyone voiced their own opinions or disagreed with others.

- Dealing effectively with conflict is vital if a team is to become effective. Well-managed conflict in which disagreement benefits the group is healthy. Training in conflict management is available from many sources. A facilitator who understands conflict management can be helpful. In the meantime, establishing ground rules (with the agreement of all) can be a start in dealing constructively with conflict.

- A trusting atmosphere is extremely important to alleviate the fears many members will have in integrating themselves into a new group of people. As members increase their ability to confront what happens in a group, members often grow toward a greater sense of trust and openness with each other. Trust and openness provide a greater potential for group task accomplishment as well as for personal satisfaction and leads to a climate in which conflicts are seen as healthy and productive.

(3) Reluctant Participants. Each of us has a different threshold of need to be part of a group ("tribal" instincts versus "loner" instincts) and a different level of comfort with speaking in a group (extrovert versus introvert). Problems may develop in a group when there are no built-in activities that encourage the introverts to participate and the extroverts to listen. Resentment builds up if some members perceive a quiet individual as not fulfilling his/her responsibility as a member of the team. It is the leader's responsibility to encourage participation by including the non-participant to the degree possible. When possible, divide the task into individual assignments and reports. Some individuals are more productive working alone.

(4) Digressions. Wide-ranging, unfocused conversations are examples of a group's natural tendency to stray from the subject. Sometimes these digressions are innocent tangents from the conversation, but they

may also be an indication of the team's desire to avoid a subject that needs to be addressed. A written agenda that reflects time allowances for each topic may help steer the discussion. If straying from the topic is an ongoing problem, it may be helpful to have the group look at possible reasons for avoiding the subject. Some questions to pose to encourage the team to analyze this tendency might be the following:

- Is the mission clear to all members?
- Are all team members committed to the mission?
- Is the stated mission too broad?
- Is the group avoiding what it considers "routine" or "administrative "work?
- Is there something about a specific topic that makes it easy to avoid?

(5) Disruptions. The issues that can disrupt meetings are as varied as the personalities of the team members. The following are a few of the more common ones with some discussion on how leadership can deal with each.

- Feuding - If your team works well on most projects, feuding may be the result of a particular issue that the team has not confronted for one reason or another. When the team is dealing with such a problem, the leader needs to steer the members to find and implement an effective solution. Once accomplished, make sure the team understands and celebrates its success. However, feuding may simply be a symptom of the team blowing off a little steam; then the leader's main job is just to ensure it doesn't take up too much time.

- Blaming - Teams cannot operate effectively when members are in a blaming mode. Some members may be carrying behavior patterns from previous environments. If so, the members need to talk about the situation and express their feelings with a prohibition against voicing blame. Once the feelings are expressed (and they may be strong ones), begin the process of looking for solutions. These may be very simple (e.g., "We will work with each other up front to be clear about what we expect") but must be clear and practical. Then arrange specific times to follow up and see if the steps are working. If they are consistently working, build on the success with more ambitious steps.

- Criticizing - If your team has a member who criticizes fellow members to others inside or outside the team, that person must be confronted. The team needs to do this non-judgmentally, but firmly. It must be made clear that this is totally unacceptable behavior. The correct approach is for the members to confront each other, express their concerns, and attempt to reach a resolution.

- Not Cooperating - When one member refuses to cooperate, the most common reason is anger. That member may be angry with the team for a variety of reasons; for instance, the team wouldn't listen to his/her ideas, the team made a decision he/she disagreed with, or some reason that is not immediately apparent. Whatever the reason, the team needs to confront this problem head-on, particularly as others may be feeling the same thing.

SOURCE:
Team Leader's Problem Solver by Clay Carr. New Jersey: Prentice Hall, 1996.

Appendices

Appendix A - Sample Team Meeting Agendas

IPPM Team Meeting – 18 Apr 98

1. Meeting will be at 1000 in the Gallagher Conference Room, instead of 0900, due to scheduling conflict.

2. Note that the last chance to "save" furniture, reference materials, computers (?), etc, is COB, 18 Apr 98.

3. The major agenda item will be technical updates. This will include follow up required as a result of MG Beauchamp's visit; as well as any discussion (short) necessary to address quarterly review preparation.

ALP

IPPM TEAM MEETING

Please plan to attend team meeting on Tuesday at 9:00 am in Gallaugher Conference Room.

Meeting topics will be:

1. Comments on organization Tactical Plan. Eileen provided hard copy today. Suspense for comments is COB March 13th. Last chance for change.

2. Comments on Strategic Plan. Again Eileen has provided hard copy. Suspense for comments is COB March 15th. Division Chief specifically asked that each team provide ideas on what the organization should be doing or where we should be heading in the future; beyond FY96.

3. Who will be our team's trainer for WordPerfect, FreeLance, and Lotus 1-2-3 for Windows. Also the training requirements for the trainer are needed. This information needs to be provided to Linda

Gross by March 13th.

4. Follow-up study on IPPM survey per Tom's e-mail of 2/29/96.

5. OSD satellite broadcast on Working-level IPT process. See Tom's e-mail dated 2/29/96.

Gary

PE TEAM MEETING

We will have a team meeting at 0900 today (Tues) in the team conference room.

Agenda subjects:

1. Discussion about last week's trip
2. Decision on IPPM Working Group
3. JCALS training candidate and study

Bring any other issues with you and we will add to the agenda. I'm shooting for a 45 minute meeting.

Nan

Appendix B - Sample Team Meeting Minutes

IPPM Team Meeting Minutes
24 Jul 97

Time/Place of Meeting: 0900-1030, 24 Jul 97, Holvoet Conference Room

Attendees: Ferenc Beiwel, Gaylen Fischer, Bud Fox, Tom Schneider, John Wheeler, Alan Peltz, Eileen Griffing, Gary Lomax, and Jim Carstens (Coach).

Absent: None

Brief Announcements –

Alan informed the team that since the last meeting the team had been requested to identify a use for the remaining discretionary automation funds. A decision had been reached by those members available at the time to procure additional memory for the three older Pentium machines (Tom's, Gary's, and John's) and one Intellipoint mouse. The team endorsed that decision.

Bud reminded the team that the end of our Performance Appraisal period is rapidly approaching. A subgroup of John, Tom, and Ferenc had previously been formed to identify and propose possible alternative team award distribution methodologies. If the subgroup has any such proposals, they need to be presented to the team quickly for consideration. It turns out that the subgroup has not prepared any alternative proposals and won't in time for this appraisal period.

Gaylen reported that it is once again time to provide input for the AMC 137 report. Input is due to Bev by 31 Jul 97. **Action: Ferenc volunteered to coordinate the input gathering**.

Status of Team Quarterly Performance Review –

All members' inputs have been submitted to Eileen. Gary will synopsize the major projects for Section I of the report "Significant Accomplishments." The report should be ready for submission to management on schedule.

Project Reviews –

Members provided a quick summary of their on-going projects.

ICR Team Projects –

Bud and Gary have met with the ICR Team and discussed the two projects they advertised on the "Bid Board." They tentatively accepted the "Contamination Avoidance" project. Bud and Gary have started work on this. **Action: Bud is preparing a Project Write-up for this and will provide hard copies for all members**. The team endorsed accepting and performing the project.

AMSAA Visit –
Mr. John McCarthy, Director of AMSAA, visited IEA this past week. Each team provided briefings of their on-going actions.

Actions that resulted from the McCarthy briefings were:

(1) Ferenc should contact the AMSAA POC(s) for Future Scout Vehicle to see if we can add anything to the Technical Risk Assessment they are performing. Lessons from Bradley and Abrams may relate.

(2) Gaylen should contact the AMSAA POC(s) (Phil Beavers) about the Technical Risk Assessments they are performing for the Follow-on to Tow and Patriot PAC-3 programs.

(3) John should get together with the AMSAA personnel who provide software support to CCTT. Mr. McCarthy was interested if the remaining PRR was a way to focus more emphasis on the program's software problems.

(4) Bud should provide Mr. McCarthy with a copy of the MOU we have with the ARMS program. THIS ACTION WAS ACCOMPLISHED.

Next meeting –

Facilitator: Tom
Recorder: Ferenc
Time/Place: 6 Aug 97 at 0900-1000 in the Holvoet Conf Rm
Agenda:
Brief Announcements (Facilitator – 5 min)
Project Status Reports (All – 30 min)
Review of Open Actions from McCarthy visit (included in individual project reports)
Next Meeting Agenda (Facilitator – 5 min)

Tom Schneider
Meeting Recorder

IPPM Minutes for 3/28/96

1. Gaylen, Ferenc, Gary, Tom, Alan, and Jim met to conduct an informal dry run of our briefing to MG Beauchamp.

2. It was decided to use a three level labeling scheme:
IEA IPPM TEAM
OVERVIEW
VISION

3. A cover chart will be added.

4. The strategic and tactical plans will be used as info source for the overview charts.

5. FAST chart will be kept as a backup chart.

6. Gary will deliver overview section, Ferenc will do the study update, Gary will review old study, and Tom will talk about the IPPM Working Group.

7. Tom will insure consistency in the briefing package.

8. We will use black and white charts with the standardized frame, vu-graphs, and standup for the presentations.

Alan Peltz
Recorder for 3/28/96

Appendix C - Sample Team Kick-off Meeting Agenda

MX205 TANK TEAM KICK-OFF MEETING

The MX205 Tank team will have a kick-off meeting on 24 Feb 99, in the main conference room of Building 12, beginning at 0800 and lasting until 1500.

Agenda topics will be as follows:

- Introductions
- Team Mission & Background
- Review of Team Goals and Objectives
- Creation of Team Charter
- Team Building Activities
- Development of Team Decision Methodology
- Team Conflict Resolution Procedures
- Member Expertise and Roles
- Meeting Mechanics and Discipline

John Jones
Team Leader

Appendix D - Sample Team Charter

Integrated Product Team (IPT) Charter
for the Precision Guided Mortar Munition (PGMM) ATD Program

Charter No.:

1. Purpose: This charter designates a U.S. Army Armament Research, Development and Engineering Center (ARDEC) Integrated Product Team (IPT) for the Precision Guided Mortar Munition (PGMM) Program.

2. Applicability: This charter applies to all organizations, activities, agencies and support elements at the Picatinny site and includes those elements external to Picatinny that are responsible for the acquisition, development and maintenance of PGMM. This charter does not alter the relationships of materiel developer and combat developer or the acquisition process.

3. Program Summary

A. Acquisition Program: 6.3, Concept Exploration

(1) Nomenclature: The US Army has identified a need to provide improved mortar ammunition to allow defeat of high value targets, quickly and with minimal collateral damage. The laser guided PGMM is being developed for this purpose.

(2) Title: Precision Guided Mortar Munition (PGMM)

(3) ACAT #: III

(4) Classification: Unclassified

B. Customer: DA

C. Product Consumers: US Army Infantry Center, Ft. Benning

D. Program Proponents: US Army Infantry Center, Ft. Benning

E. Milestone Decision Authority: Dept. of the Army

F. Other Approval Authorities:

(1) Requirements Document Approval: US Army Infantry Center

(2) Acquisition Plan Approval: Dept. of the Army

(3) Program Plan Approval: TACOM-ARDEC

(4) Contractor Source Selection / Award: TACOM-ARDEC / PM-MORTARS

4. Explanation of terms:

A. Concurrent Engineering - Concurrent Engineering is the simultaneous and integrated approach to the acquisition, design, production and maintenance of products. This approach has been proven to save both time and money and cause those involved in development to consider all aspects of the product from inception and continue this broad based thinking through the life cycle of the product. The User (Combat Developer) and the Developer (Materiel Developer) maintain a continuous flow of documented information to preclude ignoring the important User required needs, quality, cost, and schedule requirements.

B. Integrated Product Team - A concurrent engineering team consisting of key Government and contractor representatives from each functional organization involved in the life cycle of a specific

acquisition/design/maintenance action. The team works together to establish and improve the design of the product, its manufacturing process and enhance the planning and subsequent execution of required actions pertaining to other functional areas. The team will solve problems as a unit, relinquishing traditional "turf" battles in the interest of the program and thus lead to successful production and fielding.

5. Mission:

The Army has a requirement for improved 120-mm mortar ammunition to provide responsive, precision, standoff defeat of threats behind protective cover. Such as crew served weapons, command posts, and observers, in structures of any kind. The PGMM program proposes use of a laser-guided mortar with extended range glide capability to enable defeating many types of targets with a single round. Use of laser designation means the user maintains man in the loop control of the projectile, which should greatly reduce collateral damage.

6. Team Requirements:

The team must follow TACOM-ARDEC's guidelines by using concurrent versus sequential engineering. ARDEC Policy Statement 70-1, dated 26 April 1993, requires the chartering of Concurrent Engineering / Integrated Product (CE/IP) Teams. The program is being managed under a Concurrent Engineering philosophy. Minutes of meetings and directives and action items are kept on file in the office of the Development Project Officer (DPO). The team has access and will be provided hard or electronic copy of minutes and actions. Maximum use of Electronic Mail will be made to distribute minutes on a timely basis.

7. Concept of Operation:

A. Integrated Product Team members, at the direction of the Chairperson, usually the DPO, will meet to determine the functional requirements, data, specifications, and details of technical data required. They will, as a team, provide input and assistance into all program documents throughout the life cycle.

B. The program will be guided by team meetings and input will be solicited from all members.

8. Responsibilities and Authorities:

A. Integrated Product Team: The team will have the full authority of their organization in determining the level of technical data required for the solicitation, the acquisition plan data element requirements, the establishment of acquisition milestones, the type of contract to be awarded, and the applicable selection criteria to be utilized in the solicitation and award. The team will be responsible for coordinating the development effort; however, the Functional Areas will retain full control of the product design, development, production and maintenance.

(1) The Integrated Product Team will develop plans and milestones to accomplish planned acquisition as described in the Acquisition Strategy and Plan. The current Program Plan is attached as Appendix A. It is attached so all team members are apprised of the upcoming critical points in the program progression. Meetings will be event driven and not calendar driven as can be reasonably accomplished.

(2) The team leader and team members will establish suspenses and milestones consistent with established command level policy and statutes. Measurements of the success of the program and time and money saved from original schedule should and will be documented.

B. Concurrent Engineering/Integrated Product Team Members: The team will be responsible for accomplishment of the milestones detailed in Appendix A. Team constituency includes representatives from each functional element of the Command as reflected in Appendices B of this Charter. Each functional team member will speak for the chief of the represented functional organization in the process of planning and achieving Best Value acquisitions. When the process, actions, or decisions of the Integrated Product Team are perceived as contradictory to the policies, regulations, and procedures established within the represented functional organization, the team member has not only the authority but the responsibility to surface this to the Integrated Product Team. Individual team members or functional submitters have the right to appeal Integrated Product Team decisions through their functional directors to the Fire Support Armaments Center Commander/Director. It is hoped that all decisions will reflect the decision made by the team. Conflict within the team will be resolved in a timely manner. The team can decide to utilize an IP Team facilitator to help alleviate team problems and enhance the progress of the team and the related design.

9. Member Responsibilities: The following paragraphs are detailed descriptions of team member responsibilities:

A. **Fire Support Armaments Center, Precision Munitions, Mines & Demolition Division (AMSTA-AR-FSP-G), Development Project Officer (DPO) for the PGMM Program:** The DPO will oversee all activities on the PGMM program including setting schedules, Work Breakdown Structures (WBS) and formation of working groups. The DPO will also advise TACOM-ARDEC & FSAC HQ on development of the PGMM program. The DPO will direct the activities of all members of the IPT as well as the program engineers within Precision Munitions Division.

The DPO shall also be responsible for integration of the work of different functional areas when an issue comes up that involves more than one group. In most cases, the status, progress and plans in these areas will be reviewed at the IP meetings. The IP meeting will be utilized as the tool for ensuring that issues involving several areas are addressed. The DPO reserves the option of redistributing work as dictated by manpower and work loading considerations. **(Matt Cilli)**

B. **Fire Support Armaments Center, PMMDD, Guided Munitions Team (GMT), (AMSTA-AR-FSP-G):** The item engineering contingent of the IPT shall consist of the PGMM Project Leader and the other Project Engineers assigned to the program from the GMT. The individual project engineers shall be responsible to anticipate, plan, track and take corrective action when necessary on issues related to their area of responsibility. These areas will include, but are not limited to, subsystem development and major tasks of the development effort, as well as consultation and close working relationships with personnel from the other IPT areas, acting as the focal point for that area between IPT meetings. The project engineer shall also ensure that issues under his or her responsibility are covered at IPT meetings as necessary. **(Greg Bischer, Todd Birch)**

3. Lockheed-Martin, Diehl, Draper: As prime contractor for PGMM, Lockheed-Martin Corp. Electronics and Missiles is responsible for all aspects of PGMM system development. Lockheed-Martin is the system integrator for PGMM and will be responsible for development of the PGMM sensor subsystem. Key subcontractors for PGMM are Diehl (responsible for airframe and the control actuator system) and Draper Laboratory (responsible for the PGMM rate sensor). Team members from Lockheed-Martin and their subcontractors will fill key roles in IPT events. IPT activities will focus on an open exchange of ideas throughout program execution to leverage team resources and experience whenever practical. **(James Williams, David Puchaty, Werner Strauss, Martin Staudimier, Robert Regan)**

4. FSAC, Telemetry Branch (TB), (AMSTA-AR-FSF-?): will assure the fabrication, integration, testing and data reduction/analysis of Government furnished telemetry units and memory recorders in support of all PGMM tests. **(Craig Sandberg)**

5. FSAC, Firing Tables & Aeroballistics Branch (FTAB), (AMSTA-AR-FSF-T): will respond, in a timely manner, to all requests/issues related to the exterior ballistics of the PGMM projectile. The FTAB will determine, through theoretical or empirical means, the aerodynamic coefficients for PGMM in order to formulate mathematical models to predict the flight performance of PGMM . When required, the FTAB will formulate test plans for wind tunnel, range and proving ground tests, including procedures, instrumentation and data requirements. The FTAB will attend meetings and prepare briefings as necessary and publish a technical report for each major project. **(Willie Toledo)**

6. FSAC, Simulation & Analysis Division (SAD, AMSTA-AR-FSS): As part of the PGMM CE/IPT, the Analytical Evaluation Branch will assure that PGMM is accurately represented in Army simulation efforts and will perform operational/affordability studies needed to perform system requirements/design trade studies. **(Daniel Ericson, Michael Ennis)**

7. Army Research Labs (ARL) Weapons and Materials Research Directorate (AMSRL-WMRD), Aberdeen Proving Grounds, MD and the Sensors Directorate (AMSRL-SD), Adelphi, MD: ARL team members will be utilized as needed for matters relating to their area of expertise . Topics involving ARL specialists include interior and exterior ballistics and the Global Positioning System. **(Andy Ladas - SD; Dr. Oberle, Dr. Lyon - WMRD)**

8. Program Manager - Mortar Systems (AMSTA-DSA-MO): The development of PGMM will be managed by PM-Mortars beginning in the EMD phase. A team member from the PM office is required throughout the program to participate in program planning and to address aspects of PGMM development concerning integration of PGMM with the Battalion Mortar System (BMS) and the Manportable Fire Control System (MFCS), such as operational issues, fire control, force structure impact, deployment, physical interconnection with BMS or MFCS, etc. Several members of the PM office will be required to participate in the development of Acquisition Plans and to assure that an appropriate funding profile is maintained. This representative will bring any issues that may arise to the attention of the development team. PM-Mortars representative will be integral to the projectile development as well, notifying the PGMM team of any other integration issues that may arise. The PM office will be apprised of progress and invited to attend all meetings. **(Andrew Wood, Peter Burke)**

9. U.S. Army Infantry Center, Fort Benning, GA, DCD: The U.S. Army Infantry Center is the proponent and combat developer for artillery munitions. DCD represents the Infantry Center and the user by developing the necessary requirement documents to support munition acquisition. DCD will attend IPT meetings on an as-needed basis to ensure that the user's requirements are reflected in the design and performance of the munitions under development. The Infantry Center will recommend materiel release of munitions to HQ

TRADOC when the user requirements have been met during technical and operational testing. **(David Hancock)**

10. U.S. Army Infantry Center, Fort Benning, GA, Dismounted Battlespace Battle Lab (DBBL) and US Army TRADOC Analysis Center - White Sands Missile Range (TRAC-WSMR):

DBBL and TRAC-WSMR will execute simulated experiments to continue to quantify the battlefield utility of PGMM and obtain operational insights (DTLOMS impact and Tactics, Techniques, and Procedures development) and to support system design trade-off analyses (balance cost and performance).
(Paul Remmie, Stan Gray)

11. Procurement, Acquisition Center (AMSTA-AR-PCC): The Acquisition Center shall arrange for appropriate Procurement representation at IP Team meetings when requested, advise IP Team on all matters relating to Procurement actions for PGMM, make or arrange for timely decisions and/or recommendations concerning all contractual aspects of the PGMM program, and implement all proper, authorized contractual actions for the PGMM program. **(Richard Clark)**

12. Quality Engineering Directorate, Artillery Systems Division, Smart Munitions / Mortars Branch (AMSTA-AR-QAA-C) will be responsible for providing design guidance and criteria that ensure accomplishment of specified preliminary safety and Reliability, Availability and Maintainability (RAM) goals; preparing and participating in formulation of PGMM test programs, plans and concepts; developing safety, RAM, and QA contract technical requirements and evaluating contractor proposals.
(Nassir Jaffery)

13. Warhead, Energetics and Combat-Support Armaments Center, Warheads Division, Energetics and Warheads Division, (WECAC, WED): WECAC, WED will provide concept evaluation and design support for the PGMM warhead subsystem, including analysis of warhead performance and design support for component and assembly testing. **(Ernest Baker)**

14. CCAC, (AMSTA-AR-CCF-A): will be responsible to ensure that the fuzing for PGMM meets all Fuze and applicable projectile specifications / requirements. Emphasis will be placed on meeting the requirements of the Army Fuze Safety Review Board and MIL-STD-1316. This effort will include close interaction with the CE/IP Team and contractors. Some of the fuzing design requirements include: resistance to atmospheric electrostatic discharge (ESD); resistance against electromagnetic radiation hazards (EMRH); meeting EOD requirements; meeting Human Engineering requirements. The Fuze Division will also witness appropriate laboratory and ballistic tests and participate in failure

analysis/corrective action activities. In addition, the Fuze Division will pursue in-house fuze/component designs as an alternative approach. **(Dennis Ward)**

15. Testing, Large Caliber Test Branch (AMSTA-AR-AEC-L) will provide technical support related to PGMM development tests utilizing the ARDEC air gun and rail gun. **(John Bostonian)**

16. Testing - Yuma Proving Ground, Weapons Systems Branch (STEYP-MT-EW-W): Will be responsible for planning, conduct, analysis, and reporting the results of PGMM testing done at Yuma Proving Ground. YPG will provide technical support to other Federal government agencies and provide advice and guidance on test matters to materiel developers, materiel producers, other services, and private industry as requested. YPG will attend those meetings that require expertise in the area of test and evaluation. (Gary Houghton)

CONCURRENCE:

_____
STEPHEN R. PEARCY, CHIEF, PMMDD, FSAC

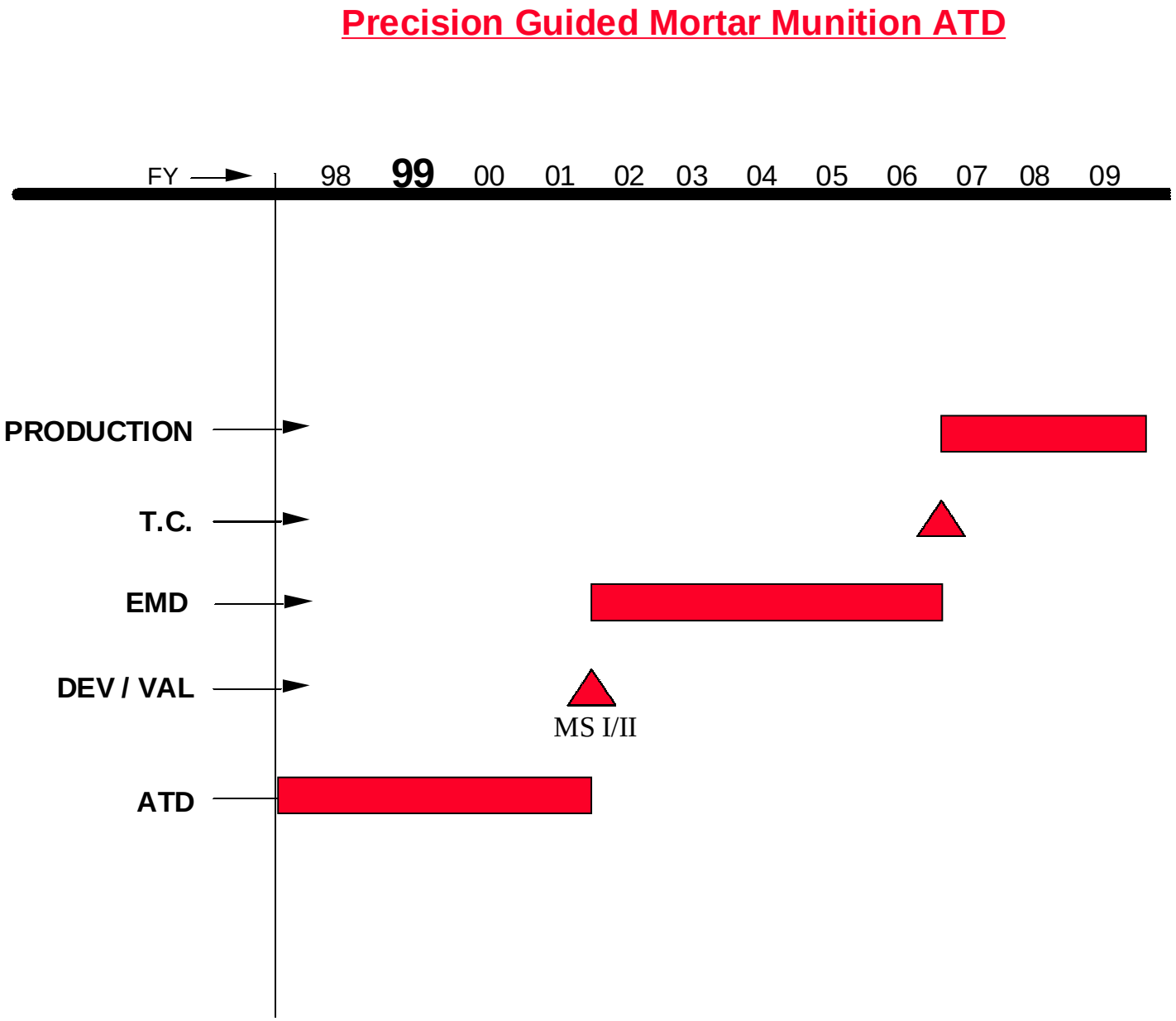
_____
COL GEORGE E. MAUSER, CDR/DIR FSAC

APPROVED:

_____
M. FISETTE, ARDEC TECHNICAL DIRECTOR

APPENDIX A - PGMM PROGRAM SCHEDULE & FUNDING PROFILE

1. The following chart represents an overview of the acquisition plans for the PGMM Program.



APPENDIX B - TEAM MEMBERS

Para. #	Functional Area	Individual Name	Phone #✧	Organization
1	DPO for PGMM	Matthew Cilli	6655	TACOM-ARDEC
2	Project Leader	Greg Bischer	2804	TACOM-ARDEC
2	PGMM Engineering	Todd Birch	2463	TACOM-ARDEC
3	Program Manager	Jim Williams	407-356-7204	Lockheed-Martin
3	System Engineer	Dave Puchaty	407-356-5348	Lockheed-Martin
3	Program Manager	Werner Strauss	499119572319	Diehl
3	Projectile, System Integrator	Martin Staudenmeir	499119572714	Diehl
3	Program Manager	Robert Regan	617-258-2422	Draper
4	Telemetry	Craig Sandberg	4945	TACOM-ARDEC
5	Aeroballistics	Willie Toledo	4523	TACOM-ARDEC
6	Effectiveness Analysis	Dan Ericson	6643	TACOM-ARDEC
6	Effectiveness Analysis	Michael Ennis	6657	TACOM-ARDEC
7	GPS	Andrew Ladas	301- 394-2620	ARL (SD)
7	CFD Analysis	Dr. William Oberle	410-278-6200	ARL (WMRD)
7	Aeroballistics	Dr. Dave Lyon	410-278-7782	ARL(WMRD)
8	Project Management	Andrew Wood	5802	PM-Mortars
8	Project Management	Pete Burke	5802	PM-Mortars
9	User	David Hancock	706-545-4918	DCD, USAIC
10	Operational Analysis	Paul Remmie	706-545-5886	DBBL
10	Operational Analysis	Stan Gray	505-678-1754	TRAC-WSMR
11	Acquisition	Richard Clark	2850	TACOM-ARDEC
12	Quality Assurance	Nassir Jaffery	5601	TACOM-ARDEC
13	Warhead	Ernest Baker	5097	TACOM-ARDEC
14	Fuze	Dennis Ward	301-394-2424	TACOM-ARDEC
15	Testing	John Bostonian	2134	TACOM-ARDEC
16	Testing	Gary Houghton	602-328-6088	YPG

✧ All Phone #'s are COM (973) 724-xxxx or DSN 880-xxxx unless otherwise noted

Appendix E - Sample Team Leader Appointment Letter

A - Approval ***X*** - Signature ***C*** - Concurrence ***R*** - Review

AMSTA-AR-FS

TO
R - AMSTA-AR-TDS
X,C - AMSTA-AR-TD

FOR
R - AMSTA-AR-GS
R - AMSTA-AR-CS
R - AMSTA-AR-DC
X,A - AMSTA-AR-CG

SUBJECT: Appointment Letter for the Development Project Officer (DPO) for the Precision Guided Mortar Munition (PGMM) ATD Program

1. PURPOSE: To obtain the Commanding General's approval for the designation of a DPO for the PGMM ATD program.

2. DISCUSSION: This Appointment Letter designates Mr. Matthew Cilli as TACOM-ARDEC Development Project Officer (DPO) for the Precision Guided Mortar Munition (PGMM) ATD Program. Enclosure 1 is the PGMM Integrated Product Team (IPT) Charter and details the responsibilities of the team members for this program. This effort includes the use of RDT&E funds that are managed by Mr. Cilli.

3. RECOMMENDATION: It is recommended that the Commanding General approve and sign the DPO Appointment Letter.

GEORGE E. MAUSER
COL, AR
Commander/Director, FSAC

Encl.:
as

DEVELOPMENT PROJECT OFFICER (DPO) APPOINTMENT
FOR THE
PRECISION GUIDED MORTAR MUNITION (PGMM) ATD PROGRAM

A. General

This Appointment Letter designates a U.S. Army Tank-automotive and Armaments Command (TACOM), Armament Research, Development and Engineering Center (ARDEC), Development Project Officer (DPO) for the Precision Guided Mortar Munition (PGMM) ATD Program; establishes and prescribes the DPO mission, the support to be provided to the DPO and provides for the management emphasis necessary to establish and execute the mission of the PGMM ATD program.

B. Designation

Mr. Matthew Cilli (Guided Munitions Team, Precision Munitions, Mines and Demolition's Division, FSAC) is designated as the Development Project Officer for PGMM. Termination will be effected upon written notification of the Commander, TACOM-ARDEC. Under the terms of this appointment, the DPO reports to the Commander, TACOM-ARDEC through the appropriate chain of command.

C. Authority

The DPO is delegated full line authority of the Commander, TACOM-ARDEC for executing the missions of the PGMM program as described in the PGMM Integrated Product Team (IPT) Charter (enclosed). The DPO will exercise, staff, and coordinate all aspects of the program as defined in the IPT Charter. The DPO is authorized to initiate correspondence pertaining to any aspect of the PGMM program, except letters pertaining to contractual matters, which will be prepared for the contracting officer's signature.

The DPO will establish the program schedule and funding levels, work breakdown schedules and exit criteria.

The DPO will exercise decision authority on all matters within the scope of the PGMM IPT Charter.

The DPO will have the authority to communicate directly with OGA's and program contractors. All communication with the prime or sub-contractor will be through the prime contractor's program manager. Communication that may be construed as contract changes and/or additions will be forwarded in writing for signature by the procurement contracting officer or contracting officer's representative.

The DPO will provide direction to OGA's (e.g., laboratories, proving grounds, depots, etc.) to facilitate expeditious and sound day-to-day execution of the IPT Charter.

The DPO will serve as the PGMM POC for Advanced Warfighting Experiments (AWEs) and Advanced Concept Technology Demonstrations (ACTDs) by interfacing with other TACOM-ARDEC POCs, PM-MORTARS, the Battlelabs and the user (U.S. Army Infantry Center, Ft. Benning, GA).

D. RESPONSIBILITIES

The DPO will:

- Establish and coordinate overall program direction with the Commander/Director, FSAC, and provide the program direction, resource management and liaison with higher headquarters and the User community at Ft. Benning (USAIC).
- Maintain close contact with PM-Mortars with regard to technical progress and programmatic issues for all phases of development.
- Provide funding, via reimbursable orders, for all costs incurred in accomplishing the IPT charter tasks described herein.
- Define proper and adequate IPT Structures in a timely, efficient and cost effective manner to accomplish the mission of the PGMM ATD program.
- Along with the prime contractor, develop Integrated Product Teams for each of the functional areas of the PGMM ATD program.
- Coordinate any MOA or MOU with OGAs involved in similar technology development.
- Coordinate all interactions with foreign countries related to development of technologies similar to PGMM.
- Define and control the IPTs' operating budgets.
- Provide status of the IPTs' accomplishments at regularly scheduled meetings or as requested in R&A's, etc.
- Be responsible for DOD, AMC, DA interfaces for program reporting, etc.
- Provide letter input to IPT members' annual Performance Appraisals.

SUBMITTED BY:

Commander/Director, FSAC _____ _____
COL GEORGE E. MAUSER Date

CONCURRENCE:

Technical Director _____ _____
MICHAEL FISETTE Date

APPROVAL:

Commander, TACOM-ARDEC _____ _____
JOHN P. GEIS Date
Brigadier General, USA
Commanding

Appendix F - Team Assessment Tool

INPUTS	**Individual Assigned Weight (1-10) 1=low and 10=high**	**Individual Assessment of Team Performance**	**Individual Assessment of Management Support**	**Weighted Team Importance Team Leader Derives**	
I. Group Composition	**Col 2**	**Col 3**	**Col 4**	**Col 5a**	**Col 5b**
Adequate skills					
Heterogeneity					
Organizational tenure					
Job tenure					
II. Group Structure					
Role and goal clarity					
Specific work norms					
Task control					
Size					
Formal Leadership					
III. Management Support					
Authority					
Accountability					
Training					
Technical consultation					
Executive Support					
Markets served					
Resources					
Information					
Time					
Environment					
Rewards for Group Performance					
Supervisory Control					
Organizational Buy-in					
Participative Culture					
IV. Group Process/Synergy					
Open Communication					
Supportiveness					
Conflict Management					
Weighting individual inputs					
Involvement/Commitment					
Trust					
Boundary management					

V. Group Task (regulator)					
Task Complexity					
Environmental uncertainty					
Interdependence					
VI. Group Effectiveness					
	Prediction from 1st IPR	Prediction from 2nd IPR	Prediction from 3rd IPR	Actual (post mortem)	
Performance					
Satisfaction					

Model Effectiveness Tool was adapted from team assignment for SIT 740 based upon the Gladstein Model
Definition for all components of the Model is on back of instrument

Data Dictionary

Category: Group Composition

Adequate Skills – refers to the right knowledge, skills, and abilities to do the job assigned to the team. This could refer to the adequacy of the technical skills. It could refer to the adequacy of knowledge of the organization's systems, processes, and culture that the team's recommendations impact.

Heterogeneity – refers to the requisite diversity of the group. Should the team composition be reflective of the diversity of the larger population of the organization? Is an appropriate mix of stakeholders represented on the team? Diversity in groups mitigates the tendency toward Groupthink.

Organizational Tenure – refers to the tenure of the members in the organization as a whole.

Job Tenure – defined as the relevant knowledge, skills and abilities associated with the task required for the job, not the formal time in a specific job. Those with more job tenure are likely to understand the full gamut of considerations required for the team project.

Category: Group Structure

Role and goal clarity – refers to the team member's understanding of the team's goals, whether the goals are clear to all members. Do the members have agreement on the priority of the project as compared to other duties that team members may have?

Specific work norms – refers to the accepted behaviors and work standards that everyone in the organization follows. It includes items such as punctuality, normal hours worked each day, attitudes towards overtime and dedication to fulfilling commitments.

Task control – refers to the methodology in place to insure that specific work items or milestones are completed in an acceptable manner. It includes factors such as timeliness, quality and financial.

Size – refers to the number of members the team should consist of.

Formal Leadership – refers to leadership skills of the team leader, it includes the ability to set vision, give direction and guidance, establish schedules, define deliverables, communicate in all directions, hold group members accountable, establish camaraderie, and achieve results.

Category: Management Support

Authority - ability to move resources, adjust schedules among the tasks regardless of organizational boundaries.

Accountability – clearly identified reporting chains and formats for cost, schedule and performance, and correction/resolution of issues/problems.

Training – refers to the adequacy of skills necessary to for team performance.

Technical consultation – refers to the adequacy of technical consultation availability to the team. Does the team have requisite subject matter experts available? This could include the team's requirements for facilitators.

Market Served – relates to a team access to the markets (internal or external) to develop an understanding of their needs both stated and unstated.

Executive support – related to clear goals, but in addition these goals have to show clear linkage to senior executives goals or objectives.

Resources (Money, Equipment, Facilities) - refers to the financial support given to the team in order to accomplish its task.

Information – refers to the extent to which the information needs of the team are being met. This includes the quality, quantity, timeliness, and availability of required information. Failure to obtain the requisite information in a timely manner could undermine the team in milestone accomplishment/project success.

Time – refers to the adequacy of the time to do the job assigned to the team.

Rewards for Group Performance refers to the benefit yielded or satisfaction given for accomplishing a specific task. A supportive organizational reward system can reinforce motivational benefits of a well-defined team task, and a poorly structured reward system can undermine and erode those benefits.

Supervisory Control refers to direction work, actions or performance of the task. The ability of the team champion (generally external to the team) to stay involved and committed to the task, getting things done, being part of the team effort and take charge in situations as required.

Organizational Buy-In refers to the backing and support of the organization. The organization must believe that the task is in support of the corporate goals and objectives and those members will learn and grow in the process.

Participative Culture refers to the receptiveness of the organization's environment to teams, and to ideas that are out-of-the-box and the extent to which the organization embraces collaboration instead of competition. Does the functional stovepipes view the team as an asset or a threat.

Category: <u>Group Process/Synergy</u>

Open Communication – group participants are able to freely express their opinion.

Supportiveness – group members think independently but back team decisions.

Conflict Management - refers to the success in the team resolving disagreements and friction between group members.

Weighting individual inputs – refers to the adequacy of the team to consider individual group participants' voice/opinions in their decision making process.

Involvement/Commitment- refers to the extent of engagement of team members. The extent to which they feel a sense of urgency to get the job done. The extent to which team members are committed to the success of the team.

Trust – refers to the belief among team members that others will pull their weight, fulfill commitments responsibly, and can be depended upon.

Boundary Management – legitimacy, sponsorship.
Internal – Understand power dynamics of the organization. Fostering sufficient relationships with those outside the team so that the team's goals can be achieved and implemented.
External – Maintain relationship with those outside the organization who influence or who rely on the team's output. Ability to detect required changes and priorities.

Category: <u>Group Task (regulator)</u>

Task Complexity – refers to the level of difficulty/simplicity of the task.

Environmental uncertainty – refers to how much environmental uncertainty that the team must cope with in accomplishing its task.

Interdependency – refers to the level of dependency between team members and the environment to accomplish the task.

Category: <u>Group Effectiveness</u>

Performance – refers to how well the group as a whole satisfies/meets the goals and objectives that were set for the team. Performance is a measure of how well a team has accomplished its mission. This is not predicted by team but derived from their inputs at the IPRs and after completion of project.

Satisfaction - refers to the sense of accomplishment felt by individual members of a team and collectively shared by all team members if the mission or parts of the mission were deemed to have been completed successfully. In terms of team effectiveness, satisfaction describes the degree to which the obligation of meeting goals and objectives has been accomplished.